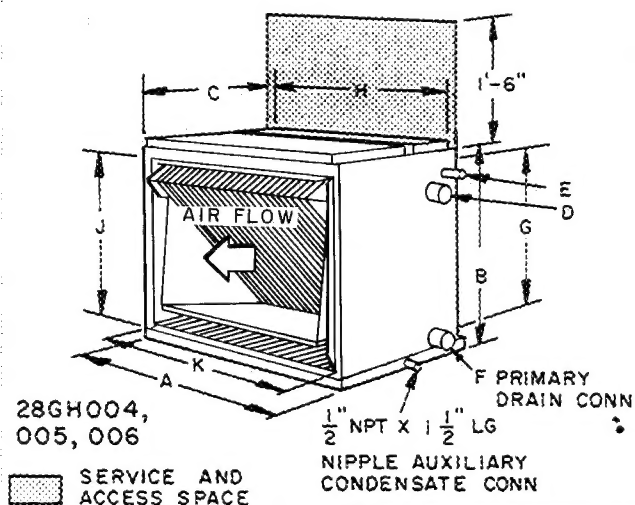
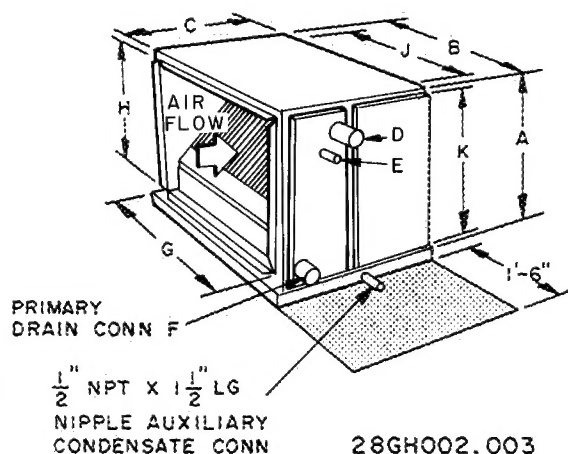


# Direct Expansion Evaporator Coil

## GENERAL

These encased coils must be used in a horizontal position with the air flow in the direction as indicated in Fig. 1.

**Transportation Damage** — If any damage is noted when unpacking coil, file a claim with the transportation agency.



| UNIT 28GH         |              | 002               | 003               | 004               | 005               | 006               |
|-------------------|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| DIM. (ft.-in.)    | A            | 1-4 $\frac{1}{8}$ | 1-8 $\frac{1}{8}$ | 2-0 $\frac{1}{8}$ | 2-4 $\frac{1}{8}$ | 3-0 $\frac{1}{8}$ |
|                   | B            |                   |                   | 1-8 $\frac{1}{8}$ |                   |                   |
|                   | C            | 1-2 $\frac{3}{4}$ |                   | 1-4 $\frac{1}{8}$ |                   |                   |
| CONN. (in. ODF)   | D Suction    | $\frac{3}{8}$     |                   | $\frac{3}{4}$     |                   | 1 $\frac{1}{8}$   |
|                   | E Liquid     |                   | $\frac{3}{8}$     |                   |                   | $\frac{1}{2}$     |
|                   | F Condensate |                   |                   | $\frac{7}{8}$     |                   |                   |
| Duct Inlet (in.)  | G            |                   |                   | 18 $\frac{3}{8}$  |                   |                   |
|                   | H            | 14 $\frac{5}{8}$  | 18 $\frac{3}{8}$  | 22 $\frac{3}{8}$  | 26 $\frac{3}{8}$  | 34 $\frac{3}{8}$  |
|                   | J            |                   |                   | 18 $\frac{3}{8}$  |                   |                   |
| Duct Outlet (in.) | K            | 14 $\frac{5}{8}$  | 18 $\frac{3}{8}$  | 22 $\frac{3}{8}$  | 26 $\frac{3}{8}$  | 34 $\frac{3}{8}$  |

**Fig. 1 — Dimensions**

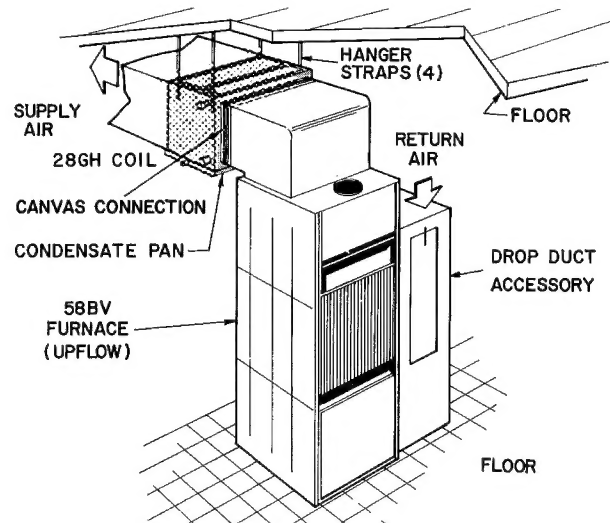
## INSTALLATION

Install coil in the horizontal run of a supply air duct from any furnace. Fig. 2 shows typical installations. Attach ductwork to encased coil. Use straps for hanging. Do not drill or screw into coil condensate pan. Coil must be level for proper condensate drainage.

If the duct cross-sectional area between coil and furnace is smaller than entering air opening of encased coil, a transition must be made in the duct. The ratio of transition in the duct must not exceed more than one inch for every seven in both the horizontal and vertical planes.

Where it is necessary to reduce fan noise or vibration, install a canvas connection in the ductwork on the entering air side of the coil.

When encased coil is installed in a crawl space, attic or basement with less than 18 in. service clearance above the unit, it is not possible to service unit thru the access panel. In these cases, part of the ductwork must be cut away or unit must be removed from duct for servicing.



**Fig. 2 — Typical Installation**

**Refrigerant Piping** — Connection sizes are given in Fig. 1.

COILS 002 THRU 005 use Carrier Compatible Fittings and accessory tubing package for connections. Detailed instructions are included with the tubing package. Do not remove rubber plugs from Carrier Compatible Fittings on the coil until ready to connect the suction or liquid line into the fitting. If coil piping is left open, vapor holding charge will escape and allow moisture to enter.

COIL 006 must have the liquid and suction lines soldered to the unit.

**Refrigerant Control** is a factory-installed thermal expansion valve. For proper operation, locate the feeler bulb outside the encased coil about 45 degrees above the horizontal center line of the suction line.

Do not mount bulb such that capillary tube extends from bottom of bulb. Clean suction line for good contact with bulb. Secure bulb tightly to suction line with metal straps provided. If this is not done, liquid may slug to the compressor.

**Suction Line Insulation** — Insulate entire suction line. Tubing package has an insulated suction line.

Insulate suction line from encased coil to, and surrounding, expansion valve feeler bulb on 28GH Coils.

**Refrigerant Charge** — Coils 002 thru 005 have vapor holding charge. Do not evacuate if accessory tubing package with Carrier Compatible Fittings is used. If sweat connections are used, purge or evacuate coil and piping.

Coil 006 is shipped without charge. Purge or evacuate coil and piping.

Refer to Standard Service Techniques Manual, Chapter 1, pages 1-8 thru 1-14, and condensing unit and/or tubing package instructions for details.

#### Condensate Drain

1. Connect the rubber elbow (furnished with unit) to the primary drain. See Fig. 1.
2. Connect 7/8-in. copper tube to the elbow.
3. Form a trap in the 7/8-in. copper tube and run the tubing to an *open drain*. Drain tube should be pitched at least 1 in. per 10 ft.
4. Run individual condensate lines to the primary and secondary drain pans. The condensate line should discharge at a point where it can be readily observed if a correction is needed.

#### HOW TO APPLY HOSE CLAMPS

1. Pull ends apart (Fig. 3).
2. Wrap around hose with toothed end beneath. Prelatch by compressing until last ratchet teeth catch behind small tabs.

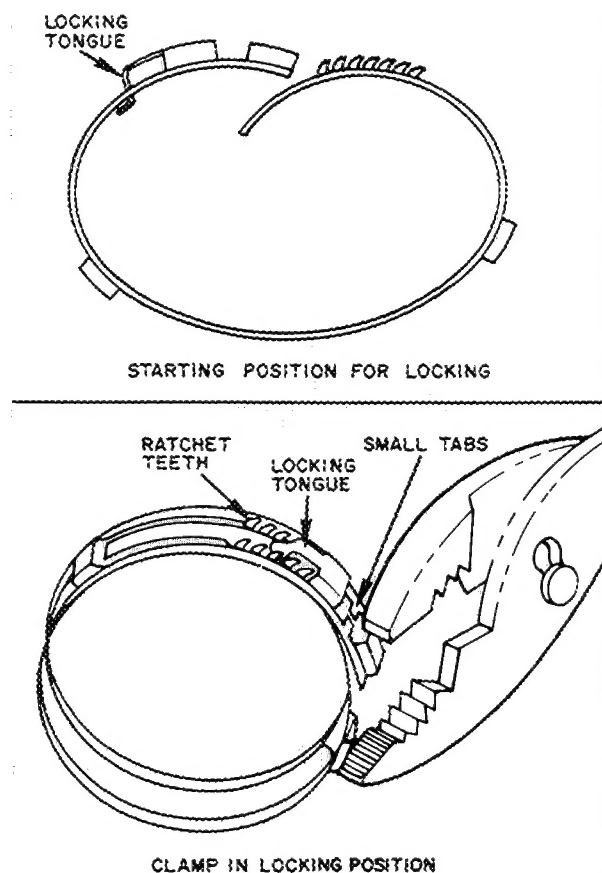


Fig. 3 — Hose Clamp

3. Grip adjacent bridges with pliers and compress to tight position. Pliers can be held parallel to hose where space is limited.
4. To remove, lift the locking tongue with screwdriver.

**Protective Plastic Film** — Peel from unit panels when installation is complete.

#### AIR QUANTITY

To prevent moisture blowoff do not exceed cfm shown in Table 1.

Table 1 — Maximum Allowable CFM for 28GH Coil

| COIL 28GH  | 002 | 003  | 004  | 005  | 006  |
|------------|-----|------|------|------|------|
| Horizontal | 975 | 1200 | 1580 | 1920 | 2560 |

Manufacturer reserves the right to change any product specifications without notice.

**CARRIER AIR CONDITIONING COMPANY • SYRACUSE, NEW YORK**